Manuals+ — User Manuals Simplified.

Q-SYS Core 110F Unified Core Processor Instruction Manual

Contents

Q-SYS Core 110F Unified Core Processor

Analog Audio Input Capacity

Background

- Core Nano has no analog audio inputs on board.
- Core 8 Flex provides up to 8 balanced mic/line inputs via configurable FLEX I/O.
- Core 110f provides 8 balanced mic/line inputs and up to 8 additional balanced mic/line inputs via configurable FLEX I/O.

Native Q-SYS Options

QIO Series I/O Expanders

- QIO-ML2x2: 2 balanced mic/line inputs
- QIO-ML4i: 4 balanced mic/line inputs

Q-SYS Network amplifiers

- SPA-Q 100-2f amplifier: provides up to 2 balanced mic/line inputs via configurable FLEX I/O.
- SPA-Q 200-4f: up to 2 balanced mic/line inputs via configurable FLEX I/O.
- CX-Q 2K4: 4 balanced mic/line inputs
- CX-Q 4K4: 4 balanced mic/line inputs
- CX-Q 8K4: 4 balanced mic/line inputs
- CX-Q 4K8: 8 balanced mic/line inputs
- CX-Q 8K8: 8 balanced mic/line inputs

Q-SYS Microphone

- **NM-T1:** provides up to 360-degree coverage from four software-configurable zones, consider in place of analog microphones which consume balanced mic/line inputs.

Q-SYS Partner Ecosystem Options

- Every Q-SYS Core includes Dante and AES67 network I/O capability natively as part of the overall Q-LAN network I/O capacity. An 8×8 Software Dante license is included from the factory that is field-expandable via Q-SYS feature license(s).
- Core Nano and Core 8 Flex provide up to 64×64 network audio channels via up to 32×32 network streams, all of which are available for Q-LAN or AES67 allocation. An 8×8 Software based Dante capacity is included that can be expanded up to 32×32 channels via up to 16×16 flows which are allocated from the overall network audio channel and network stream capacities.
- Core Nano and Core 8 Flex with either the Collaboration or Commercial AV Application Bundle scaling license provide up to 128×128 network audio channels via up to 64×64 network streams, all of which are available for Q-LAN or AES67 allocation. An 8×8 Software Dante capacity is included that can be expanded up to 32×32 channels via up to 16×16 flows which are allocated from the overall network audio channel and network stream capacities.
- Core 110f provides up to 128×128 network audio channels via up to 64×64 network streams, all of which are available for Q-LAN or AES67 allocation. An 8×8 Software Dante capacity is included that can be expanded up to 32×32 channels via up to 16×16 flows which are allocated from the overall network audio channel and

network stream capacities.

Attero Tech by QSC

- Synapse D16Mio: 16 balanced mic/line inputs
- Synapse D32Mi: 32 balanced mic/line inputs
- unD6IO: 2 balanced mic/line inputs and 2 unbalanced line inputs
- unD6IO-BT: 2 unbalanced line inputs and 2 Bluetooth audio inputs
- unDX2IO+: 4 balanced mic/line inputs
- unDX4I: 4 balanced mic/line inputs
- Axon D2i: 2 balanced mic/line inputs

3rd party

- Refer to Audinate's Dante-enabled Product Catalog

AES67-enabled Products

Attero Tech by QSC

- **Axon A4Flex:** 2 balanced mic/line inputs and up to 2 additional balanced mic/line inputs via configurable FLEX I/O.

NOTE: Extensions are provided in Q-SYS Designer for Attero Tech by QSC products which integrate the control over these products without the need for additional programming or licensing. Plugins may be available in Asset Manager for select 3rd party products which integrate control over those products without the need for additional programming but do require a Q-SYS Scripting Engine feature license to deploy.

Analog Audio Output Capacity

Background

- Core Nano has no analog audio outputs on board.
- Core 8 Flex provides up to 8 balanced line outputs via configurable FLEX I/O.
- Core 110f provides 8 balanced line outputs and up to 8 additional balanced line outputs via configurable FLEX I/O.

Native Q-SYS Options

QIO Series I/O Expanders

- QIO-ML2x2: 2 balanced line outputs
- QIO-L4o: 4 balanced line outputs

Q-SYS Network amplifiers
(consider in place of analog amplifiers which consume balanced line outputs)

- SPA-Q 100-2f: up to 2 balanced line outputs via configurable FLEX I/O and 2 amplified outputs
- SPA-Q 200-4f: up to 2 balanced line outputs via configurable FLEX I/O and 4 amplified outputs
- CX-Q 2K4: 4 amplified outputs
- CX-Q 4K4: 4 amplified outputs
- CX-Q 8K4: 4 amplified outputs
- CX-Q 4K8: 8 amplified outputs
- CX-Q 8K8: 8 amplified outputs

Q-SYS network loudspeakers
(consider in place of analog amplifiers which consume balanced line outputs)

- NL-C4: network amplified loudspeaker in a ceiling mount form factor
- NL-P4: network amplified loudspeaker in a pendant mount form factor
- NL-SB42: network amplified loudspeaker in a surface mount soundbar form factor

Q-SYS Partner Ecosystem Options

Q-SYS Network amplifiers

- Every Q-SYS Core includes Dante and AES67 network I/O capability natively as part of the overall Q-LAN network I/O capacity. An 8×8 Software-based Dante license is included from the factory that is field-expandable via Q-SYS feature license(s).
- Core Nano and Core 8 Flex provide up to 64×64 network audio channels via up to 32×32 network streams, all of which are available for Q-LAN or AES67 allocation. An 8×8 Software-based Dante capacity is included that can be expanded up to 32×32 channels via up to 16×16 flows which are allocated from the overall network audio channel and network stream capacities.
- Core Nano and Core 8 Flex with either the Q-SYS Collaboration scaling license or the Q-SYS Commercial AV scaling license provide up to 128×128 network audio channels via up to 64×64 network streams, all of which are available for Q-LAN or AES67 allocation. An 8×8 Software-based Dante capacity is included that can be expanded up to 32×32 channels via up to 16×16 flows which are allocated from the overall network audio channel and network stream capacities.
- Core 110f provides up to 128×128 network audio channels via up to 64×64 network streams, all of which are available for Q-LAN or AES67 allocation. An 8×8 Software-based Dante capacity is included that can be expanded up to 32×32 channels via up to 16×16 flows which are allocated from the overall network audio channel and network stream capacities.

Dante-enabled Products

Attero Tech by QSC

- Synapse D16Mio: 16 balanced line outputs
- Synapse D32o: 32 balanced line outputs

- unD6IO: 2 unbalanced line outputs
- unD6IO-BT: 2 unbalanced line outputs and 1 Bluetooth audio output.
- unDX2IO+: 2 balanced line outputs
- unDX4I: 2 balanced line outputs

3rd party

- Refer to Audinate's Dante-enabled Product Catalog

AES67-enabled Products

Attero Tech by QSC

- Axon A4Flex: up to 2 balanced line outputs via configurable FLEX I/O and 2 amplified outputs

NOTE: Extensions are provided in Q-SYS Designer for Attero Tech by QSC products which integrate the control over these products without the need for additional programming or licensing. Plugins may be available in Asset Manager for select 3rd party products which integrate control over those products without the need for additional programming but do require a Q-SYS Scripting Engine feature license to deploy.

GPIO Control

Background

- Core Nano has no on-board GPIO
- Core 8 Flex provides 8 GPI and 8 GPO
- the original Core 110f provides 16 GPI and 16 GPO; Core 110f v2 has no on-board GPIO

Native Q-SYS Options

QIO Series I/O Expanders

- QIO-GP8x8: 8 GPI and 8 GPO

QIO Series I/O Expanders

- SPA-Q 100-2f: up to 4 GPI or up to 4 GPO via configurable GPIO ports
- SPA-Q 200-4f: up to 4 GPI or up to 4 GPO via configurable GPIO ports
- CX-Q 2K4: up to 8 GPI or up to 8 GPO via configurable GPIO ports
- CX-Q 4K4: up to 8 GPI or up to 8 GPO via configurable GPIO ports
- CX-Q 8K4: up to 8 GPI or up to 8 GPO via configurable GPIO ports
- CX-Q 4K8: up to 8 GPI or up to 8 GPO via configurable GPIO ports
- CX-Q 8K8: up to 8 GPI or up to 8 GPO via configurable GPIO ports

Q-SYS Partner Ecosystem Options
Leveraging the Q-SYS integrated control engine, Lua scripting environment, and IP connectivity, many 3rd party

devices may be integrated to augment Q-SYS control connectivity. Plugins are available in Asset Manager for the select 3rd party products listed which integrate control over those products without the need for additional programming but do require a Q-SYS Scripting Engine feature license to deploy.

- Global Caché iTach IP2CC and IP2CC-P: 3 GPO (relays)
- DataProbe iPIO-2: 2 GPI and 2 GPO (relays)
- DataProbe iPIO-8: 8 GPI and 8 GPO (relays)
- DataProbe iPIO-8: 16 GPI and 16 GPO (relays)

Documents / Resources

Q-SYS Core 110F Unified Core Processor [pdf] Instruction Manual
Core 110f, Core 8 Flex, Core 110F Unified Core Processor, Core 110F, Unified Core Processor

References

- Q-SYS - Cloud-manageable Audio, Video and Control
- Trademark Usage Guidelines - QSC